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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/727,919

12/04/2003

Marvin M. Johnson

2253-01201

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01/28/2009

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EXAMINER

NGUYEN, CAM N

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

01/28/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pathou@conleyrose.com

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/727,919 | Applicant(s) JOHNSON ET AL. | |
| | Examiner Cam N. Nguyen | Art Unit 1793 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/22/08 (an amendment/response).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-16,18-77 and 112-119 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-16,18-77 and 112-119 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/19/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 10/22/08 has been made of record and entered. Claims 5, 17, & 78-11 have been canceled. Claims 11 & 113-119 have been amended.

Claims 1-4, 6-16, 18-77, & 112-119 are currently pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-16, 18-77, & 112-119 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al., hereinafter referred to as "Johnson '124", (US Pat. 4,404,124) taken together with Ryu et al., hereinafter referred to as "Ryu '588", (US Pat. 6,576,588 B2).

Johnson '124 discloses a catalyst for selective hydrogenation of acetylene, which consisting essentially of particles of alpha alumina containing metallic components consisting essentially of palladium and silver wherein the palladium is about 0.01 to about 0.025 weight percent of the catalyst, the weight percent silver is at least twice that of the palladium, the silver is distributed throughout said catalyst particles and substantially all of the palladium is concentrated in an area within 300 microns of the exterior surface of at least 90 percent of the catalyst particles (see col. 6, claim 1).

Regarding claims 1-4, 7, & 51, Johnson '124 does not disclose the claimed Group VIII metal and second metal concentrations. It would have been obvious to have utilized such metal components in the amounts as taught by Ryu '588 to result in an effective catalyst in Johnson because it is known and evidenced by Ryu '588 the claimed amounts are effective (see Ryu '588 at col. 8, lines 12-35 and Examples in the reference).

Recitation on "wherein the catalyst is capable of selectively hydrogenating acetylene with a conversion Sc of at least about 95% and a selectivity to ethylene relative to ethane Sc of at least about 25 when the catalyst is employed in a steady-state liquid phase hydrogenation process" in the instant claim 1 and other intended use limitations set forth in the dependent claims are noted. It is considered the catalyst disclosed by Johnson would obviously be capable of performing the same because both the disclosed catalyst and the claimed catalyst contain the same metal components and having the same composition.

Regarding claims 6, 8-16, 18-50, 52-77, & 112-119, Johnson does not disclose the second metal component being zinc, Group VIIB or Mn, Group III metals or In, Ga, etc. as recited in the above listed claims. However, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have incorporated these known active metal components into the catalyst of Johnson in order to achieve an improved and effective catalyst material because they are known as useful catalytic metals, as evidenced by Ryu '588 (see Rye '588 at col. 18, claim 7).

Response to Applicants' Arguments

3. Applicants' remarks filed on 10/22/08 have been fully reconsidered, but not deemed persuasive because of the following reasons.

Applicants argue, that the combination of the cited references to John '124 and Ryu '588 is improper because it would not lead to a catalyst or process as disclosed in the instant claims and there is no expectation of success for a hydrogenation catalyst having the claimed selectivities, is noted.

Examiner maintains the position that the combination of the applied references is proper because: (1) they both teach the same field of art, which is a selective hydrogenation catalyst or catalyst for hydrogenation of acetylenes, (2) it is considered obvious for a person having the ordinary skill in the art at the time the invention was made to optimize the amounts of the Group VIII metal of the references to achieve an effective catalyst material because it is results effective variable, see *In re Boesch*, and (3) applicants did not provide a comparative data or a showing that by optimizing the amounts of Group VIII metal of the references would not result in the same catalyst as being claimed.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

5. Claims 1-4, 6-16, 18-77, & 112-119 are pending. Claims 1-4, 6-16, 18-77, & 112-119 are rejected. No claims are allowed.

Contacts

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner CAM N. NGUYEN, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Primary Examiner

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/C. N. N./

January 20, 2009